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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,955	03/16/2000	Meral Bradley Woodberry	SMT 391	1607

7590 11/04/2004  
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EXAMINER

NGUYEN, VINH P

ART UNIT PAPER NUMBER

2829

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/526,955

Applicant(s)

WOODBERRY, MERAL BRADLEY

Examiner

VINH P NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-19, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 20, 22, 24 and 26 is/are rejected.
- 7) ☒ Claim(s) 21, 23, 25, 27-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20,22,24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirt (pat # 5,448,802).

As to claims 20,22,24,26, Hirt discloses in figure 6 a wafer (90) with a plurality of IC dice (94) and these dice are connected to an electrical source (electrical power and ground). Hirt teaches that the dice (94) on the wafer (90) are tested simultaneously. Hirt does not disclose the details of the die in figure 6. However, Hirt also discloses a die (40) as shown in figure 2 having optically sensitive devices (20,22) electrically connected to a component (30). According to Hirt, the optical devices (20,22) are selectively activated by spectral inputs (optical signal), then the optical devices output test signal (current signal) to the component (30) so as to exercise the component (30). It would have been obvious for one of ordinary skill in the art to provide the die structure of figure 2 for the die structure in figure 6 so that such dice on the wafer are tested according to Hirt's technique.

As to claim 26, since the dice are connected to the electrical power by contacts (92). These contacts (92) would be qualified as a power connector. Furthermore, it appears that these dice are also grounded by ground connector in order to have a complete circuitry.

3. Claims 21,23,25,27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not disclose a second optically sensitive device connected to the component output for receiving the electrical command signal, a first switch for enabling the power connector and a second switch for enabling the ground connector, first and second diodes as optically sensitive devices and an electrostatic discharge protection circuit including diodes connected between power and ground.

4. Claims 1-4, 6-19,29 and ~~30~~ are allowable since the prior art does not disclose method and apparatus for exercising components on the integrated circuit having a probe card with power source, ground source, a plurality of apertures extending through the probe card and aligned with optical sensitive device on each of the integrated circuits and a light source for providing a light beam through the apertures in order to stimulate the sensitive devices.

5. Applicant's arguments with respect to claims 1-30 filed on 09/07/04 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P NGUYEN whose telephone number is (571)-272-1964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VINH P. NGUYEN  
PRIMARY EXAMINER  
ART UNIT 2829

10/27/04